

New Conopidae from South America, Africa, and Australia (Diptera)

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The following novelties suggest the paucity of our knowledge of this conspicuous family outside of Europe and North America. Material has been examined from the U. S. National Museum and the British Museum through the courtesy of C. S. Sabrosky, F. van Emden, and H. Oldroyd.

Tropidomyia alexanderi new species

Holotype male: Front blackish brown, vertex yellowish, ocellar swelling blackish, ocelli yellow. Frontal orbit gold pollinose with velvety black spot near facial junction. Face gold pollinose, keel and oral margin shiny black. Cheeks less pollinose, brownish beneath the pollen. Occiput brownish, post-orbitals gold pollinose. Antennae brownish yellow, lighter at base, arista darker. First antennal segment hardly two times as long as wide, second segment about five times length of first. Third segment two times length of first. Aristal process and apex subequal, as long as wide. Proboscis blackish brown, one and one-half times length of head.

Thorax dorsally and postnotum blackish, faint yellow pollinose especially near humeri. Humeral and scutellum brownish red. Pleura yellowish brown, partly pollinose. Coxae brown, yellow gray pollinose; femora and tibiae brownish, faintly pollinose; tarsi and claws blackish, pulvilli yellow. Wings hyaline with brown pattern from costa to anterior half of submarginal cell, and along vena spuria, fifth, and sixth veins. Halteres yellow with club blackish.

Abdomen and genitalia black, second to fifth segments with gold pollinose distal margins. Sixth segment nearly all yellow pollinose, as long as wide. Length: 9 mm, without antennae.

Allotype: Similar to the type, but pollinose areas more grayish, less golden. Theca flexed anteriorly; as long as wide; posterior surface somewhat triangular. Sixth abdominal segment shorter than wide. Length: 9 mm, without antennae.

Holotype male and *allotype*, Maracaju, Matto Grosso, BRAZIL, May 1937, R. C. Shannon (U. S. National Museum). *Paratypes*, 3 males, 1 female, same data as types; 3 males, Rio Claro, Sao Paulo, BRAZIL, July, Oct. 1939, Claretiano (USNM); 1 male, Sao Paulo, BRAZIL, Hammar (author's cn., ex Cornell U.); 1 male, Annapolis, Goyaz, BRAZIL, Sept. 16, 1936 (USNM); 1 female, Villarica, PARAGUAY, May 1938, F. Schade (author's cn., ex Sabrosky).

This species is remarkably similar in coloration to *bimaculata*, there being no reliable color differences. However the structural differences are very distinct and constant in the series examined. Three males and four females of *bimaculata* from Maracaju, Matto Grosso, Brazil, and San Rafael, Vera Cruz, Mexico (USNM) are at hand for comparison. The two neotropical species of this genus differ as follows:

1. First antennal segment four times as long as wide. Sixth abdominal segment longer than wide. Theca of female longer than wide.....*bimaculata* Will.
- First antennal segment two times as long as wide. Sixth abdominal segment in both sexes, and theca, not longer than wide.....*alexanderi* n.sp.

This new species was recognized by Shannon, and his manuscript name has been used. It was evidently intended to honor Prof. C. P. Alexander with whom Shannon spent some of his early days at Cornell.

Euconops rufus new species

Holotype female: Front and vertex rufous. Ocellar swelling black. Face and cheeks yellow. Velvety black mark at fronto-facial junction of orbital, and at junction of facial and oral keel. Upper occiput rufous; lower occiput yellow. Antennae black except brownish first segment. Second segment as long as first; third segment three times as long as first. Lateral process of arista very small. Proboscis black, about as long as head height.

Thorax rufous with white pollinose pleural stripe and coxae. Legs black, tibiae white pollinose, pulvilli yellow. Wings hy-

aline, faintly yellow anteriorly. Petiole of first posterior cell as long as anterior cross-vein. Calypteres and halteres yellowish white.

Abdomen rufous. White pollinose posterior margins on segments one and two, and sides of segment three. Theca long and slender, two times as long as wide; black posterior serrate area on distal half. Genitalia black. Length: 9.5 mm, without antennae.

Holotype female, Emali Range, Sultan Hamud, KENYA, 4,900–5,000 feet, 3–40. (British Museum.)

Referral of this species without metallic blue to *Euconops* precludes this color as a generic character. I find no significant difference between the antennae of *Euconops* and *Pleurocerinella*. The two genera may be separated as follows:

1. Head as long as high, nearly quadrate. No hairs on face and cheeks. Labellae of proboscis chitinous. . . . *Euconops*
 Head higher than long. Hairs on face and cheeks. Labellae fleshy and haired. *Pleurocerinella*

In Kröber's key to the genera (*Annals and Mag. Nat. Hist.*, Ser. 11, Vol. 4, 1939, page 363), the new species keys out to the Australian *Chrysideomyia*, which differs in having a large thick third antennal segment two times as long as the second segment, and the usual "Conops"-shaped head.

Stylogaster parva new species

Holotype male: Vertical triangle which extends to base of antennae shining brownish black. Front and adjacent vertex velvety black. Orbital margin silvery white. Face silvery white becoming brownish at very narrow cheeks. Occiput blackish, white pollinose especially below. First antennal segment yellowish, as long as wide. Second antennal segment two and one-half times length of first, blackish brown darker at anterior and upper margin. Third antennal segment two times length of second, brownish black, more brownish at base, more black at margins. Dorsal margin of third antennal segment concave, ventral margin convex. Arista more than half length of third antennal segment, black with very short hairs (pubes-

cent). Proboscis black, yellowish at base and labellae. Proximal segment two times head height.

Thorax dorsally, scutellum, and lower three-fourths of postnotum shining black. Humeri and pleura yellowish, pleura somewhat brownish above. Anterior and middle coxae yellowish, posterior coxa blackish yellow. Legs yellowish with black hairs, darker on the tarsi. Posterior leg more blackish. Posterior femur blackish brown with a central yellowish band twice width of femur. Wings hyaline. First posterior cell slender, narrower than submarginal, width at posterior cross-vein about equal to width at distal third. Halteres yellowish at stalk, blackish brown at club.

Abdomen shining blackish brown. First and second segments yellowish laterally except posterior margin, laterally projecting hairs black. Third and fourth segments more extensively yellow leaving dark only in midline and at posterior margin. Genitalia yellowish. Length: $4\frac{1}{2}$ mm, without antennae.

Allotype: Similar to the type but yellowish areas more prominent and more distinct from the blackish areas. Most of the ovipositor is missing, but a portion about equal to one-third of the proximal segment is present. It is compressed laterally, yellowish at the base and sharply black distally. Length: 5 mm, without ovipositor.

Holotype male, Kawanda, UGANDA, July 31, 1942, H. Hargreaves (British Museum). *Allotype* female, Melsetter, S. RHODESIA, Feb. 1929, (U. S. National Museum).

This species is related to *nitens* and *nitidula* having the narrow first posterior cell. From *nitens* it differs by the dark arista and brownish black third antennal segment. From *nitidula* it differs by having black hairs on the legs and the yellowish band on the posterior femur.

Stylogaster subapicalis new species

Holotype female: Vertical triangle which extends to base of antennae shining black with narrow yellow margin. Ocelli yellow. Front and adjacent vertex yellow. Anterior orbits

white pollinose. Face and narrow cheeks pale yellowish, with white pollen. Occiput blackish at upper margin, white pollinose below. Antennae yellowish, third segment nearly orange. Second segment with black hairs at upper and lower portions. Arista black, as long as third antennal segment. First antennal segment shorter than width. Third segment one and one-half times the second. Proboscis black, yellowish at base and labellae. Proximal segment nearly three times head height.

Thorax brownish dorsally, on scutellum, and on lower half of postnotum; yellowish on humeri, sides of dorsum, and pleura. Bristle at propleural ridge black. Legs yellowish, more orange on posterior coxa and hind femur. Distal half of anterior and middle tarsi blackish, posterior tarsi entirely black. Hind tibia blackish except yellow distal half above ventral margin. Hairs black; yellow on anterior and middle tibiae and first tarsal segments, and part of distal dorsal surface of posterior tibia. Wings hyaline. First posterior cell broad, greatest width at distal third, wider than submarginal cell. Halteres yellow.

Abdomen yellowish, darker on distal segments. Narrow posterior margins brownish. Lateral hairs of first segment yellow, of second segment black. Distal segment of ovipositor black on proximal half, leaving the genitalia yellow. Length: 10 mm, without antennae; of which ovipositor is 4 mm.

Allotype: Similar to the type. Third antennal segment twice length of second. Posterior tibia more blackish proximally and on ventral margin of distal third. Yellow hairs on posterior tibia more extensive, covering dorsal and lateral part of distal third.

Holotype female, Lolodorf, CAMEROON, July 3, 1920, A. I. Good (author's cn., ex Carnegie Museum). *Allotype* male, Obuasi, Ashanti, GOLD COAST, July 25, 1907, W. M. Graham (British Museum). *Paratypes*, 1 female, Njala, SIERRA LEONE, March 1, 1934, E. Hargraeves (British Museum), 1 female, Bwamba, UGANDA, June 1948, van Someren (British Museum), 1 female, CAMEROON, Oct. 19, 1914, A. I. Good (author's cn., ex Carnegie Museum), 1 male, Marshall, LIBERIA, Feb. 4, 1952, (USNM).

This species is very similar to *leonum* differing only by the dark area on the ovipositor, and a black instead of yellow bristle at the propleural ridge. Both species have more rufous or more melanistic individuals. In *leonum* the hairs on the sides of the first and second abdominal segments are yellow in the rufous individuals and black in the darker specimens. But in the new species, all of the specimens examined have the lateral hairs on the first segment yellow and on the second segment black.

Occemyia australiana new species

Holotype male: Vertex and upper half of front black. Lower half of front yellow-orange. Orbits white pollinose. Face and cheeks yellow pollinose. Upper occiput black, partly white pollinose. Lower occiput yellow, white pollinose. Antennae yellowish, more orange on third segment. Distal margin of first segment, upper margin of second segment, distal half and upper margin of third segment, and arista black. Second and third segments equal, each two times length of first segment. Proboscis black, the two segments equal. Palpi black, longer than width of proboscis and somewhat club-shaped.

Thorax black. Dorsum with white pollen, more distinct laterally and in the grooves. Pleura white pollinose in many areas. Anterior coxae yellow. Legs yellow, black on apical half of anterior and middle femora and apical third of posterior femur. Tibiae black on distal two-thirds; tarsi black on distal two segments, and apex of claws. Wings hyaline, yellowish at base. First posterior cell open at margin. Calypteres and halteres yellowish.

Abdomen black with white pollen forming distinct posterior margins on sides of second, third, and fourth segments. Genitalia shining black. Length: 4.5 mm, without antennae.

Allotype female: Similar to the male, but yellowish areas more extensive. The black areas on the legs paler, and less distinct from the yellow. Black on apical third of anterior and middle femora, and on somewhat less than apical third of hind femur. Theca black, paler in the middle, yellowish posteriorly with narrow black margin; moderately long and thin, sides parallel, as long as wide.

Holotype male, New South Wales, AUSTRALIA, Dec. 1923, H. Peterson (U. S. National Museum, ex Malloch). *Allotype* female, Botany Bay, New South Wales, AUSTRALIA, H. Peterson (U. S. National Museum, ex Malloch).

This is the first species of this genus to be described from the Australian Region. The genus is now known from all parts of the world except the Neotropical Region south of Guatemala and Haiti.

Undescribed Species of Crane-Flies from the Western United States and Canada (Dipt.: Tipulidae) Part XV

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The preceding part under this general title was published in ENTOMOLOGICAL NEWS 66: 15-21, 1955. The species considered herewith were taken chiefly by myself while on various collecting trips to the far west. I am greatly indebted to Mr. Borys Malkin for one unusually interesting species from Arizona.

Tipula (*Trichotipula*) *malkini* new species

Size large (wing, male, over 14 mm.); mesonotal praescutum grayish brown, the interspaces darker brown, producing a conspicuous pattern; femora brownish yellow, the tips blackened; wings cream-yellow, handsomely variegated with brown; cell 1st M_2 small; male hypopygium with the beak of the inner dististyle heavily blackened, long and slender; outer basal lobe conspicuous.

♂. Length about 16 mm.; wing 14.5 mm.

Frontal prolongation of head shiny brown; nasus long and slender; palpi dark brown, the incisures pale. Antennae with the scape and pedicel yellowish brown; flagellum broken. Head with the front, vertex surrounding the antennal bases and the